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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/839,078	04/20/2001	Ping Sheng Zhang	29876/37280	2715

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EXAMINER

MCDERMOTT, KEVIN

ART UNIT	PAPER NUMBER
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3635

DATE MAILED: 07/17/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/839,078

Applicant(s)

ZHANG ET AL.

Examiner

McDermott, Kevin

Art Unit

3635

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 4, and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Penland.

Regarding claim 1, Penland discloses in figures 1 and 2 and column 3, lines 1-65, mat units 10 comprised of a first layer 12 of parallel wooden boards 16 of substantially uniform length. Each board 16 is positioned parallel to an adjacent board to form a flat first layer 12. Mat units 10 are further comprised of a second layer 14, also formed from a plurality of spaced parallel boards 26 of uniform length and being aligned with one another to form a series of parallel boards connected substantially perpendicular to the boards of the first layer 12. Column 4, lines 34-46, discloses second layer 14 having locking tabs 32 and corresponding side locking slots 34, such that the mats 10 may be locked together. Examiner considers lumber cut from trees, such as the boards 16, 26, to be cut along the grain of the tree during manufacturing.

Examiner considers the mats 10 to constitute the claimed planks, the boards 16, 26 to constitute the claimed strips, the grain of boards 16 to extend in the longitudinal direction of the mat 10, and the grain of board 26 to extend transversely to the longitudinal direction of the mat 10.

Regarding claim 2, Penland discloses in column 2, lines 43-44, using wooden boards.

Regarding claims 4 and 5, Examiner considers the locking tabs 32 and locking slots 34, together, as constituting a tongue and groove relationship.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Penland in view of Burlant.

Penland's disclosure is discussed above. However, Penland does not disclose disposing acrylic urethane or aluminum oxide on wood flooring strips.

Burlant discloses in column 1, lines 31-40, and column 2, lines 11-34, providing wood with a urethane resin and vinyl monomer coating to form a decorative or abrasion resistant coating. The vinyl monomer includes an acrylic monomer.

Therefore, Examiner considers it obvious to one of ordinary skill in the art at the time the invention was made to dispose a wood coating made of acrylic urethane on the wood boards 16, 26 of Penland. One of ordinary skill would be motivated to make such a modification to increase the abrasion resistance of all the wood board 16, 26 faces.

Claim 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Penland in view of Chen.

Penland's disclosure is discussed above. However, Penland does not disclose disposing aluminum oxide on wood flooring strips.

Chen discloses disposing aluminum oxide on floor surfaces. Therefore, Examiner considers it obvious to one of ordinary skill in the art at the time the invention was made to dispose aluminum oxide on the wood boards 16, 26 of Penland to increase the abrasion resistance of the flooring.

Claims 8-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Penland in view of Burlant and further in view of Wu.

Penland's disclosure is discussed above. However, Penland does not disclose disposing acrylic urethane on wood flooring strips or using bamboo flooring strips in lieu of wood.

Burlant discloses in column 1, lines 31-40 and column 2, lines 11-34, providing wood with a urethane resin and vinyl monomer coating to form a decorative or abrasion resistant coating. The vinyl monomer includes an acrylic monomer.

Wu discloses, in column 1, lines 14-15, a wooden or bamboo floor. Therefore, Examiner considers it obvious to one of ordinary skill in the art at the time the invention was made to make the wood boards 16, 26 of Penland from bamboo and to dispose a wood coating made of acrylic urethane on the wood boards 16, 26. One of ordinary skill would have been motivated to make such a modification to increase the abrasion resistance of all of the wood board 16, 26 faces.

Response to Arguments

Applicant's arguments with respect to claims 1-12 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Kevin McDermott, whose telephone number is 703-308-8266.

A handwritten signature in black ink, appearing to read 'Carl D. Friedman', with a long horizontal flourish extending to the right.

Carl D. Friedman
Supervisory Patent Examiner
Group 3600

KM 7/12/02